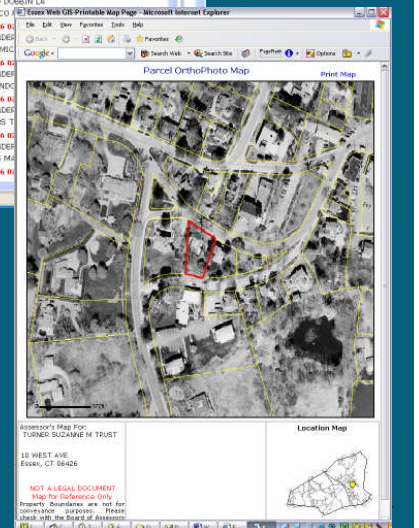
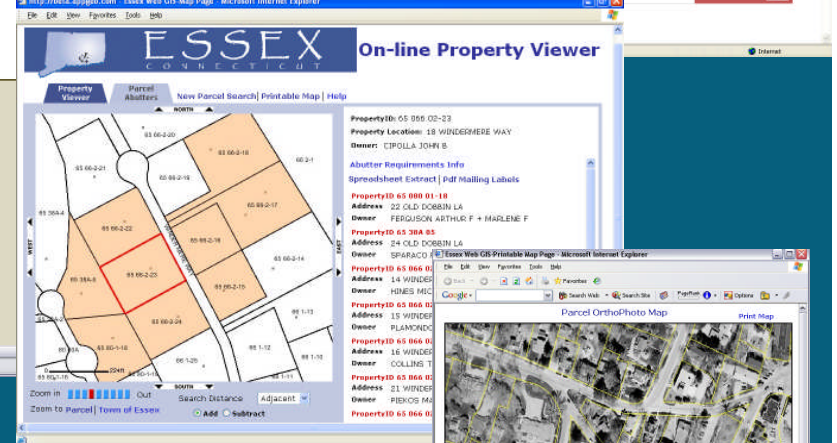
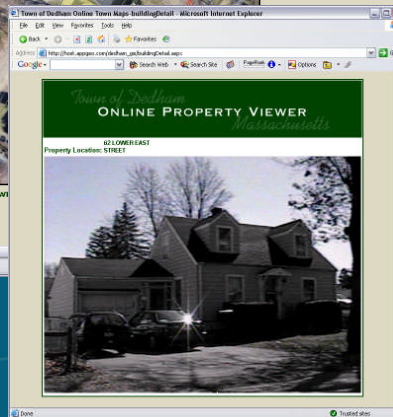
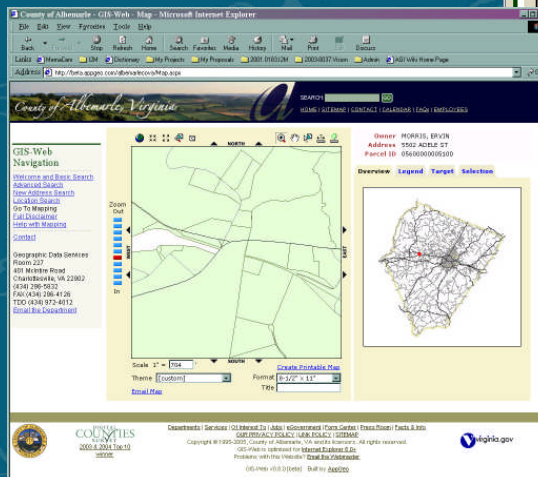
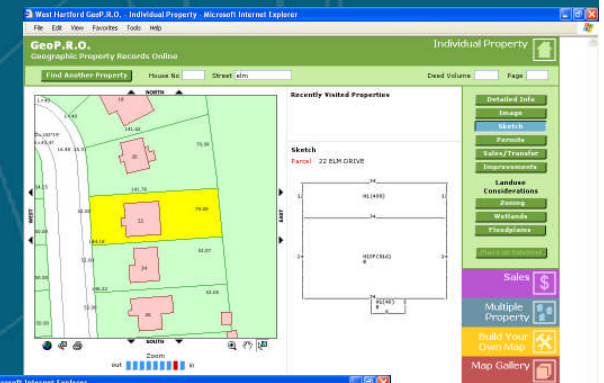
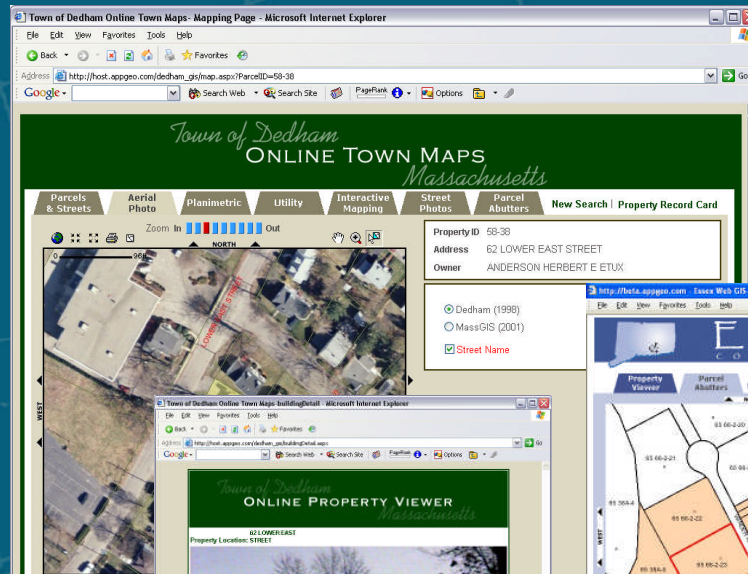
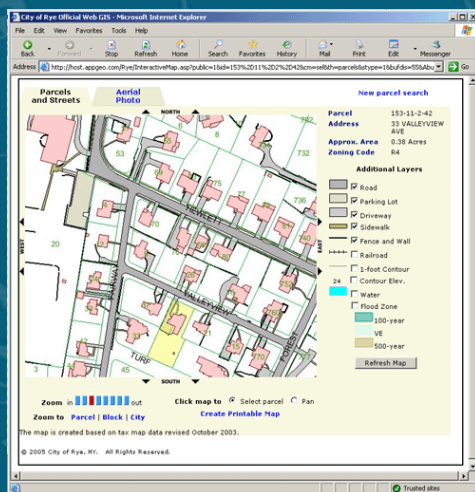


Town of Randolph, MA

Digital Parcel Mapping, Building Footprint Automation and Web-based GIS

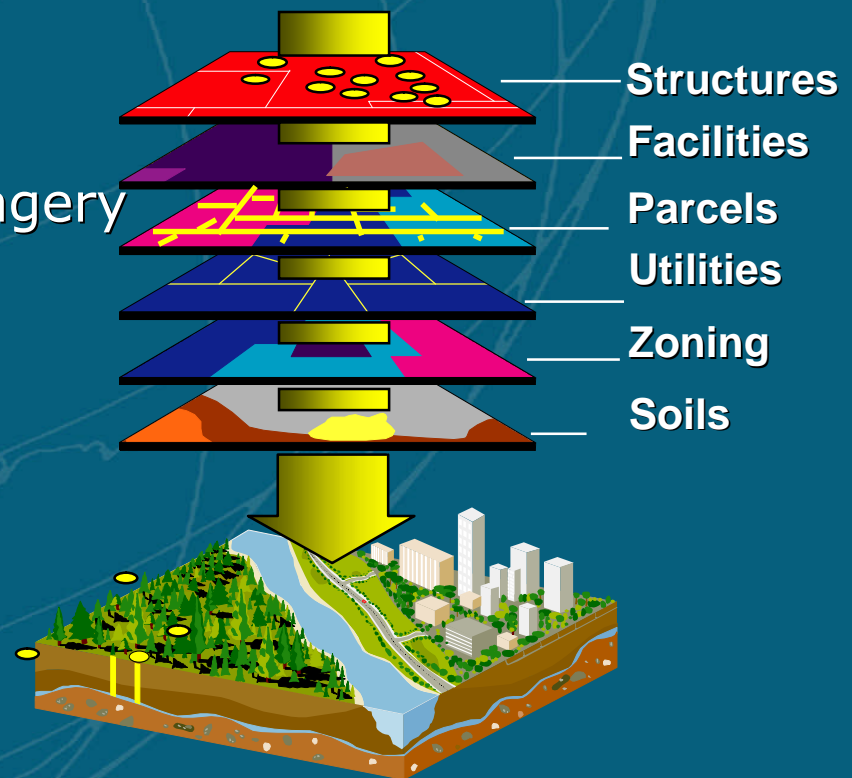


Presentation Overview

- The Digital Parcel Mapping and Building Footprint Automation Process
- Accessing GIS Maps & Tools through Web GIS
- Website Demonstration
 - Milton
- Questions & Discussion

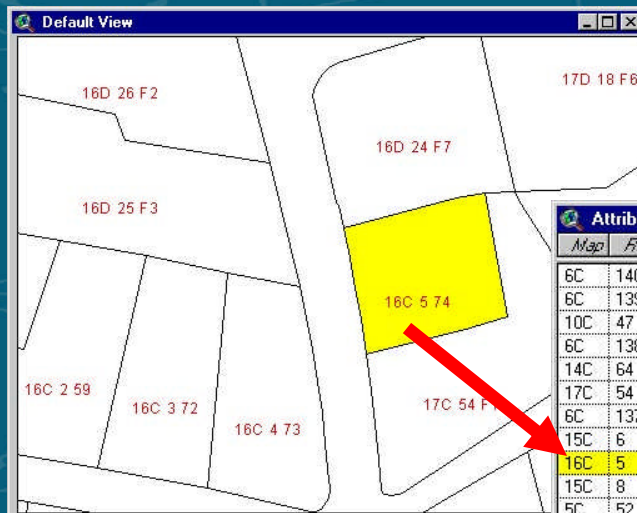
Distinguishing Characteristics of GIS: *Layers*

- Map information is stored as **layers**
- User mixes and matches layers to build the specific view needed
- Related Technologies, include:
 - CAD
 - Remote sensing/satellite imagery
 - GPS



Distinguishing Characteristics of GIS: *Attributes*

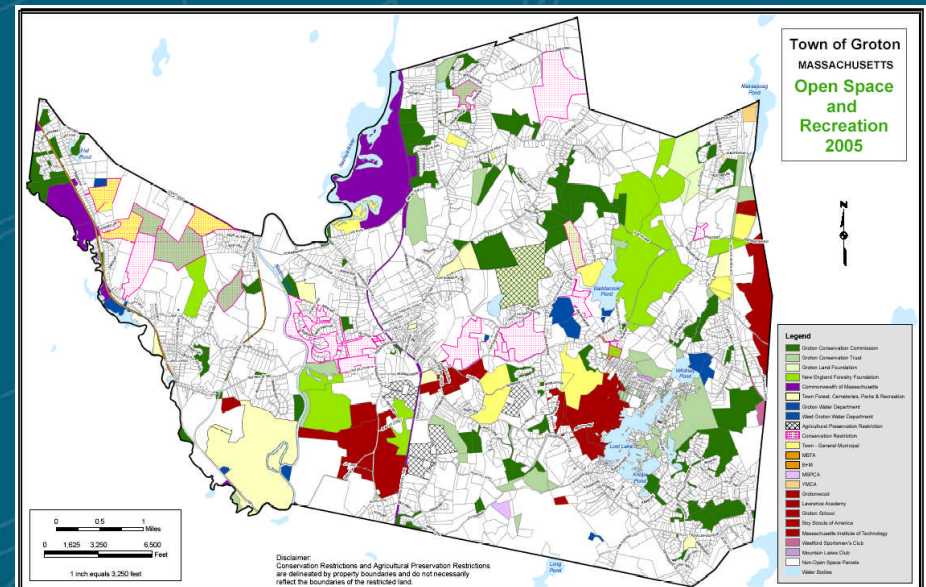
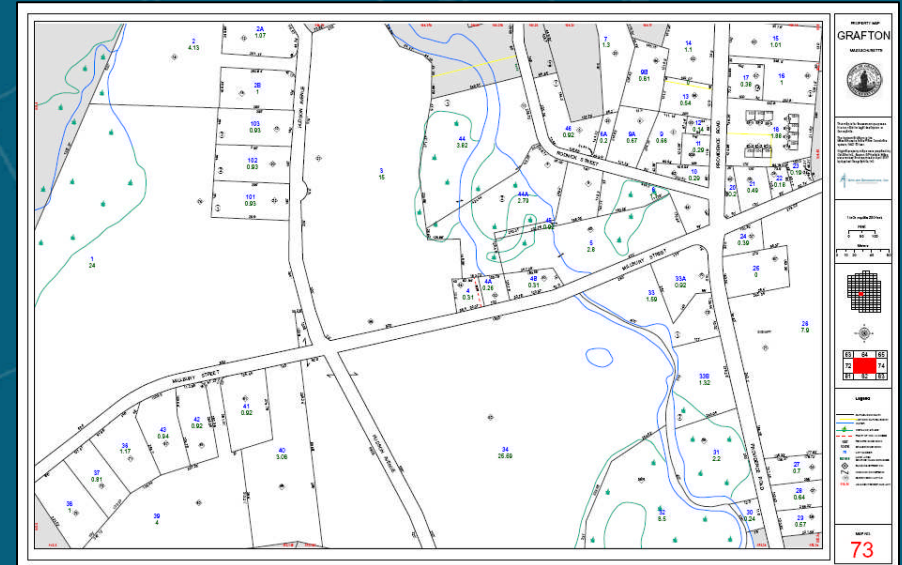
- **Map** features are connected to **database** information
 - Referred to as "**attributes**"
 - Interrogate the map: **what** is this feature?
 - Perform a data base query: **where** is the result?
 - "Show me all parcels > 5 acres but valued < \$2,000,000"



Attributes of Parcels									
Map	File	Lot	Street	Acres	Lastname	Firstname	Loc_	Loc_street	
6C	140	B8	DEERING DR	75600	PAFF	ANDREW	50	DEERING	DR
6C	139	B7	DEERING DR	74700	KAZARIAN	ARMAND	60	DEERING	DR
10C	47	D135	VINEYARD AVE	190700	GRIFFIN	GENIE	220	VINEYARD	AVE
6C	138	B6	DEERING DR	74000	R A REAL ESTATE	TRUST		DEERING	DR
14C	64	D7	STAGE HARBOR RD	131500	ROBERT WILSON I	II TRUST		STAGE HARBOR	RD
17C	54	F1	QUASSON RD	240900	SWEENEY	ROBERT	4	SHORE	RD
6C	137	B5	DEERING DR	74000	ANDERSON	H RUSSELL/ET AL	82	DEERING	DR
15C	6	11	MILL POND RD	0	SMITH	ROY	64	MILL POND	RD
16C	5	74	SHORE RD	208200	NISSMAN	HARVEY	20	SHORE	RD
15C	8	8	MILL POND LN	0	YEAH	COLEMAN	27	MILL POND	LN
5C	52	B4	DEERING DR	75200	SHERIN	KEITH	98	DEERING	DR
16C	87	65	HOMESTEAD LANE EAST	0	FORGERON	EDWARD	19	HOMESTEAD LANE	EAS
9D	56	G3	YOUNGS FARM LN	248000	KELLEY	PAUL	27	YOUNGS FARM	LN
9C	52	M3A	BARNHILL MARSH	33500	HARRIS	JULIE		BARN HILL MARSH	
14C	8	3	STAGE HARBOR RD	0	NORMAN	EDWARD	180	STAGE HARBOR	RD
2C		1	MAIN ST	91300	TOWN OF CHATHAM	/ S.C. CEMETAR		MAIN	ST

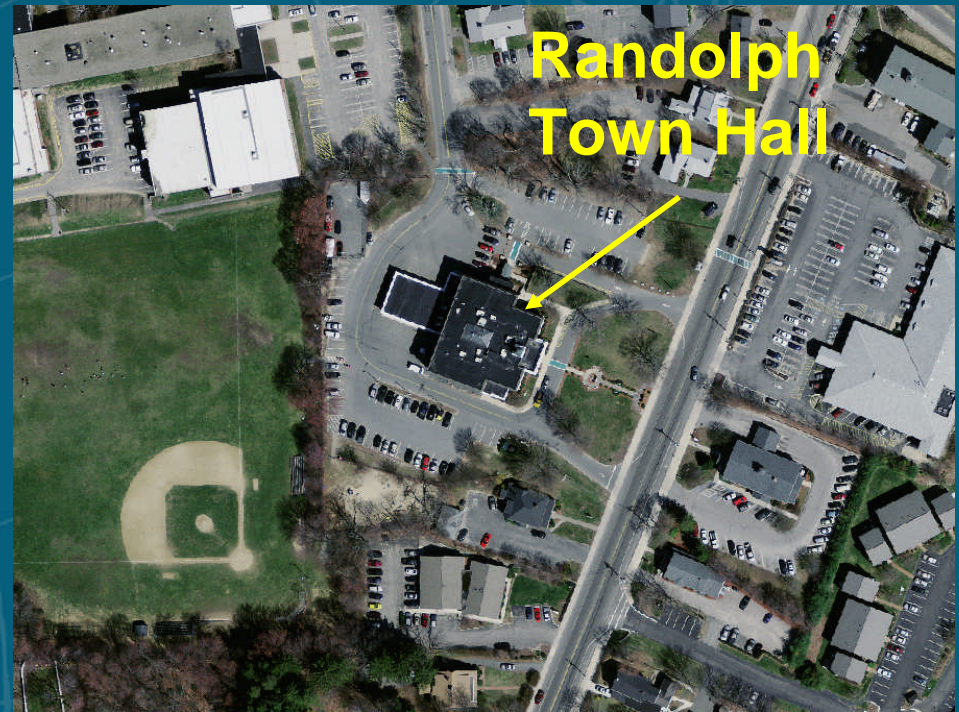
Why invest in digital parcels?

- Digital parcels are core for GIS development
 - Who owns this property?
 - Who are the abutters?
 - Where is my project?
 - What's nearby?
- Creates a base for developing thematic layers
 - Zoning
 - Open Space
 - Historic Inventory



Utilizing Randolph's new Orthophoto Basemap

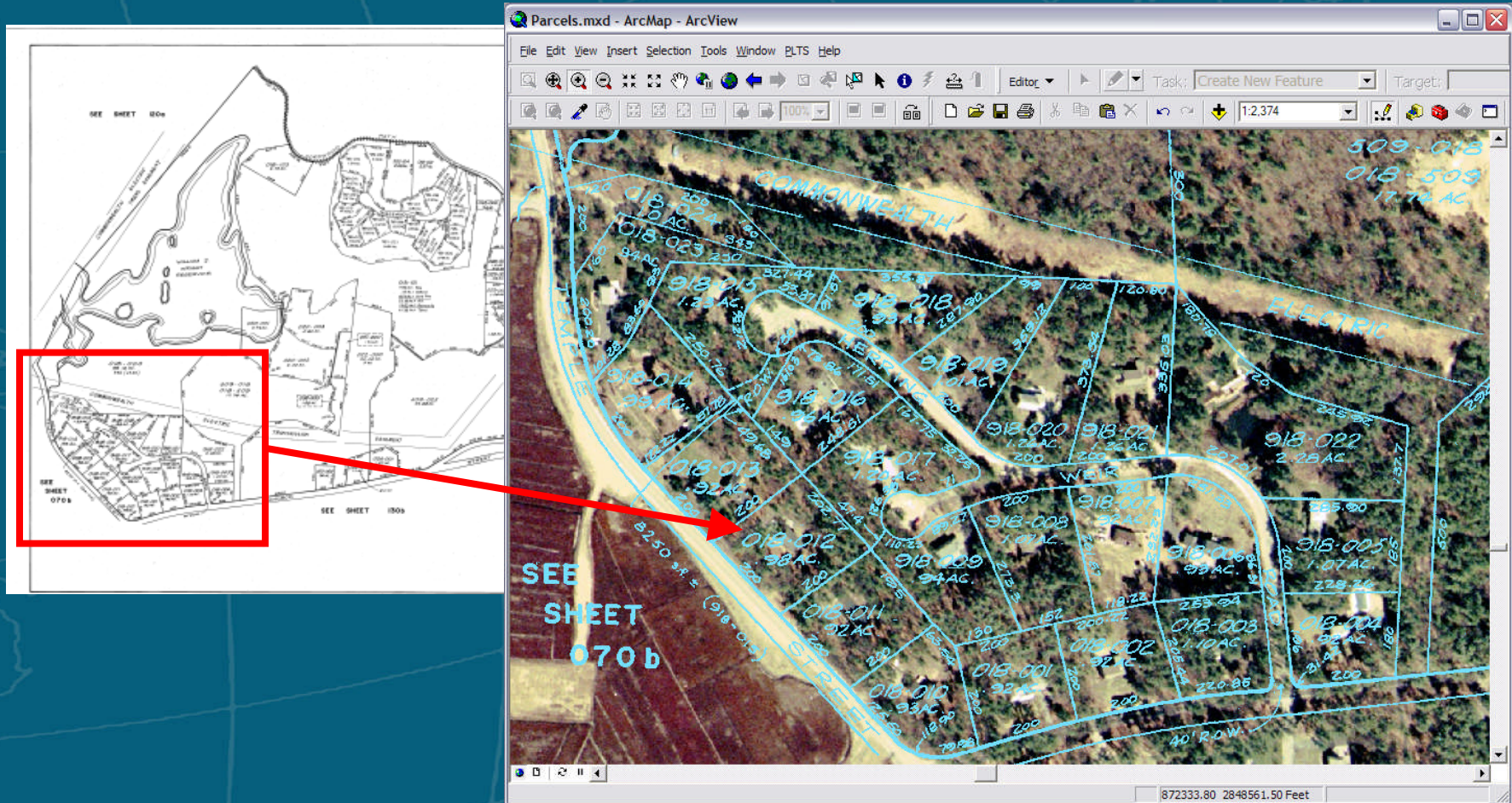
- Spring 2008 Flyover completed by USGS
- Randolph participated in a "buy up" program to acquire higher resolution imagery
- Will be used as for the digital parcel mapping and building footprint automation



Parcel Automation

Step 1:

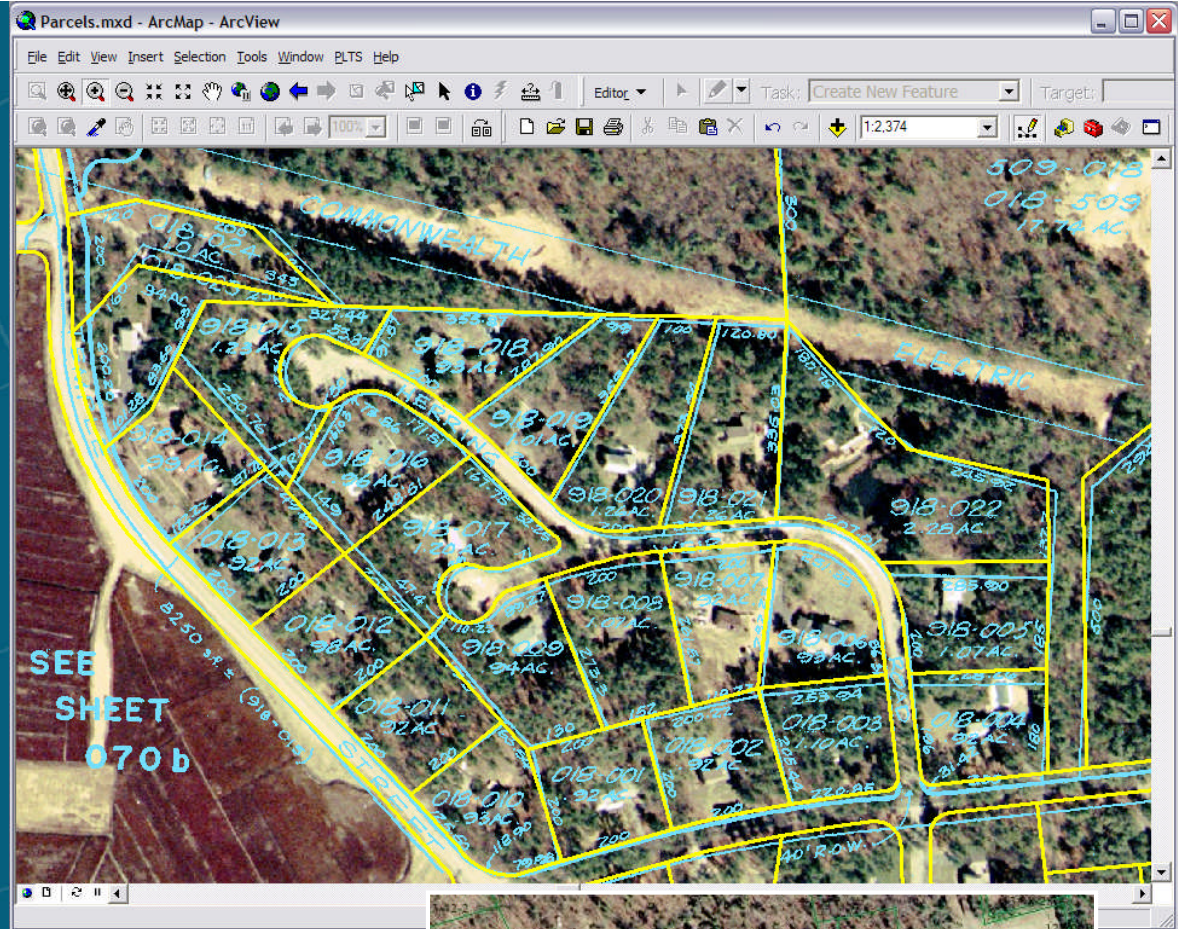
Scan and Register existing tax maps to Orthophoto Base Map



Parcel Automation Cont...

Step 2: Digitize parcel maps

- Parcel Polygons
- Easement/ROW
- Annotation text



Step 3: Adjust parcels to base map

- Use dimension text as indication of length
- Align with Base Map Features
- Align with Street Rights-of-Way
- Maintain Spatial Accuracy/Polygon shape
- Continuous Lines and Closed Polygons
- Continuous Lines Across Map Sheets

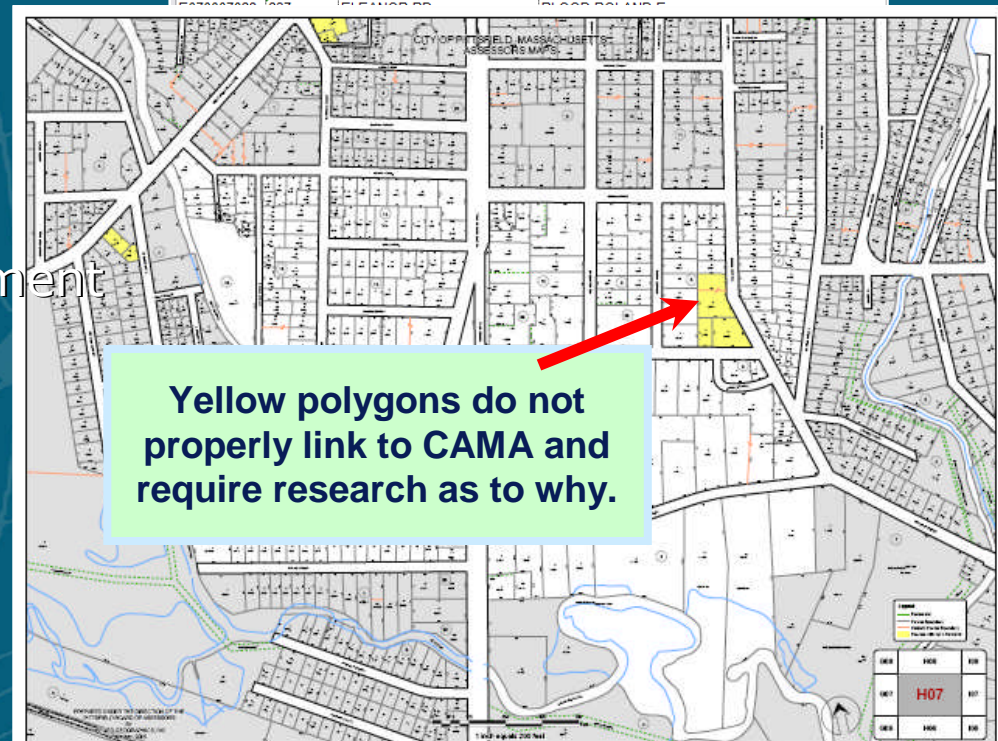


Parcel Automation cont...

Step 4: Checkplot Review

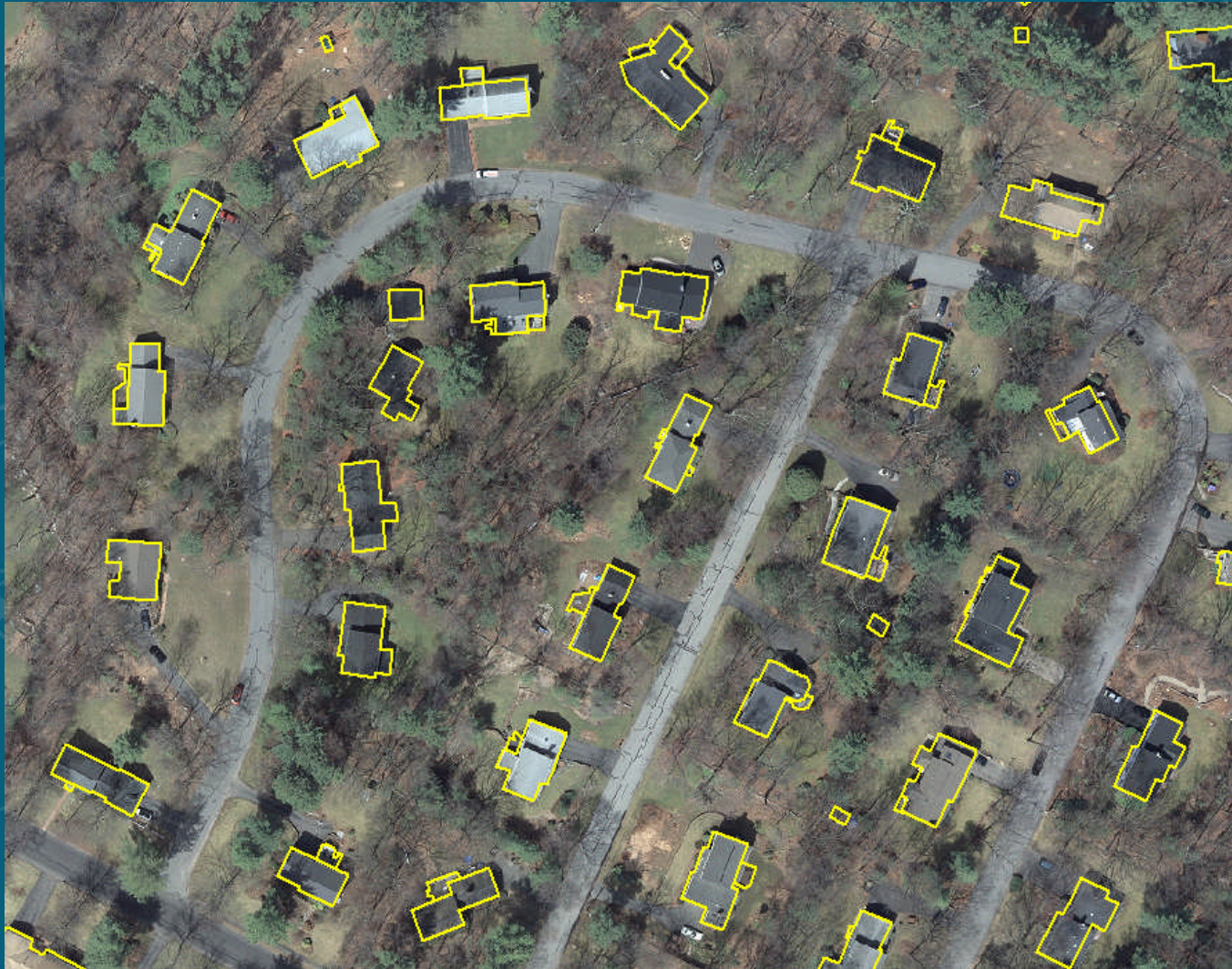
- **CAMA/Parcel Reconciliation**
 - Combined lots can pose issues
 - Condos pose an issue
- **Review new maps and mark-up as needed**
 - Parcel Boundaries
 - Parcel IDs/Linkage to CAMA
 - Right-of-Way/Easement placement
 - Dimension text
 - Street Names

PIN	ST_NUM	STREET	OWNER1
A080001006		WEST ST	GOLDEN BEAR RESOURCES LIMITED
C010099000	1136	BARKER RD	SOUTH POND FARM NOMINEE TRUST
C010099062	1136	BARKER RD UNIT #62	SOUTH POND FARM INC
C040001105		W HOUSATONIC ST REAR	CALLAHAN MAURICE E JR
C040001422		W HOUSATONIC ST REAR	WEST PITTSFIELD REALTY TRUST
C070002005		GALE AVE	ROTTI-TOUGAS REBECCA L
C090098000		APPLEWOOD LANE CONDO	GREENLAND DEVELOPMENT CORP
C090098013	13	APPLEWOOD LANE	GREENLAND DEVELOPMENT CORP
C090098014	14	APPLEWOOD LANE	GREENLAND DEVELOPMENT CORP
C090098015	15	APPLEWOOD LANE	GREENLAND DEVELOPMENT CORP
C090098016	16	APPLEWOOD LANE	GREENLAND DEVELOPMENT CORP
C090098017	17	APPLEWOOD LANE	GREENLAND DEVELOPMENT CORP
C090098018	18	APPLEWOOD LANE	GREENLAND DEVELOPMENT CORP
C090098019	19	APPLEWOOD LANE	GREENLAND DEVELOPMENT CORP
C090098020	20	APPLEWOOD LANE	GREENLAND DEVELOPMENT CORP
C090099000		CHURCHILL CREST	CHURCHILL CREST CONDOMINIUMS
C100003201	87	CASCADE ST	MCHUGH MICHAEL J
E060010013	55	OSWALD AVE	PROCOPIO FRANK J
E070002007	165	GALE AVE	TIERNEY BUSINESS TRUST
E070002009	79	OSCEOLA ST	WASNEWSKY MARK E
E070002010	83	OSCEOLA ST	LOWERY CHARLES W JR
E070002011	145	GALE AVE	BARBAROTTA VINCENT F W
E070004005	51	PLYMOUTH ST	THOMANN FAMILY NOMINEE TRUST
E070005101	134	GALE AVE	WILBUR BRENDA & RICHARD W JR
E070007027	233	ELEANOR RD	MCMUTT FAMILY NOMINEE TRUST THE



Building Footprint Automation

Step 5: Capture Building polygons from the base map



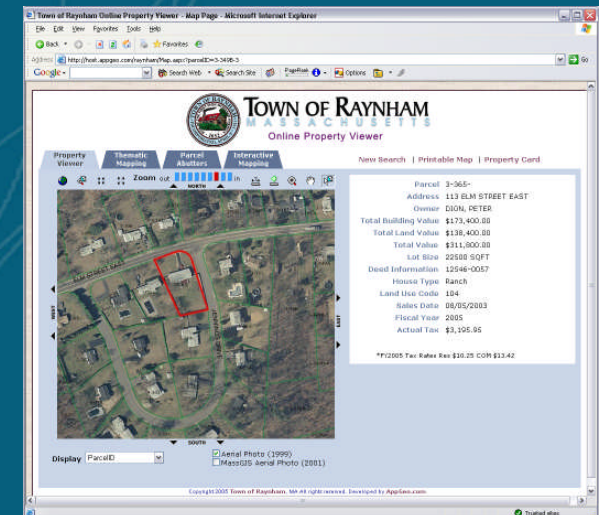
Business Case for Web GIS

Step 6: Make parcel data, maps and tools accessible to all!

- GIS websites have become **fundamental and integral components** of municipal GIS implementations
 - Especially those that do not have full-time GIS staff
- GIS websites make GIS data and maps readily available to town personnel **on a self-service basis**
 - Maps
 - Common reports: e.g. property record card
 - Basic analysis: e.g. abutter's list
- Same investment can also make GIS data and maps available **to the general public** if desired
 - Sensitive information may be suppressed
- The more the GIS data resources get used, the greater the **return on the investment**

AppGeo Overall GIS Web Development Philosophy

- **Provide quick, easy access to GIS data, maps and tools**
 - Answer questions from the public
- **GIS web-sites should be inherently simple**
 - Friendly and intuitive
 - No requirement for training
 - We've been effective: our sites get used heavily
- **GIS web-sites should be integrated with town's overall web presence**
 - It should not be a parallel mapping universe
- **GIS web-site should precisely reflect customer needs, and should be extensible over time**



Web-GIS Demonstration

Town of Milton



TOWN OF MILTON, MASSACHUSETTS ONLINE GIS VIEWER

PROPERTY SEARCH

PROPERTY ID

STREET ADDRESS

HOUSE NUMBER

OWNER NAME

[Milton User Login](#)

Welcome

This is the Town of Milton's Web-based GIS site. GIS stands for "Geographic Information System." One can view and make maps of Milton at various scales and with a variety of map layers. It can show the location of parcels and perform map-related search functions. You can select the layers you want and get a map tailored to your needs.

The tools available on this site are similar to those used on other popular web-based geographic search applications. We are confident that with a little experimentation and patience you will be finding properties and making your maps in no time at all.

Help

To begin using the site, please use one or more of the search fields to the left. Use the Street Name drop down to pick a Street Name or type in as much information as you know about the property, such as Property ID, House Number, or Owner Name to obtain a list of match records. For example, typing "S" in the Owner Last Name Field will produce a list of all property owners with a last name starting with "S". **PLEASE NOTE: This site uses pop-ups. Please disable pop-up blockers to enable full functionality of the site.**

Disclaimer

The information shown in this GIS site is provided as a service to the citizens of the Town of Milton and other interested persons. Every effort has been made to be accurate, however, the data do not take the place of a professional survey and have no legal bearing on the true shape, size, location, or existence of a geographic feature, property line, or political representation.

Town of Milton 525 Canton Ave., Milton, MA 02186 PH:(617) 898-4800 FAX:(617) 698-6741
Site designed by [AppGeo](#).

Main Search Page



TOWN OF MILTON, MASSACHUSETTS

ONLINE GIS VIEWER

Search for a Property

PROPERTY SEARCH

PROPERTY ID

STREET ADDRESS

HOUSE NUMBER

OWNER NAME

Clear

Search

Go Directly To Map


[Milton User Login](#)

PROPERTY ID	OWNER	ADDRESS
I 14 3	BERRY THOMAS R	12 SPRUCE ST
I 13 4	OCALLAGHAN MARGARET A	15 SPRUCE ST
I 14 5	LAWLOR DANIEL R	20 SPRUCE ST
I 13 6	ODONNELL CATHERINE N	23 SPRUCE ST
I 13 7	HORLINK BERNARD	25 SPRUCE ST
I 14 7	SHIELDS ALICE M TRUSTEE	26 SPRUCE ST
I 14 9	MAHON JANE M TRUSTEE	32 SPRUCE ST
I 13 8	HENDRY DONALD J	37 SPRUCE ST
I 14 10	PHINNEY JAMES A	38 SPRUCE ST
I 14 1	WILKIE ANNE D	4 SPRUCE ST
I 13 10	LOVERING DONALD	41 SPRUCE ST
I 14 12	TROZZI MARIA	44 SPRUCE ST
I 13 11	OLEARY ROBERT D	45 SPRUCE ST
I 14 14	KELLEY WILLIAM J III	48 SPRUCE ST
I 14 15	HEDIN THOMAS F	54 SPRUCE ST
I 14 18	MELEN LINNEA E	66 SPRUCE ST
I 13 2	FARRELL CHRISTINE M	7 SPRUCE ST

Town of Milton 525 Canton Ave., Milton, MA 02186 PH:(617) 898-4800 FAX:(617) 698-6741
Site designed by [AppGeo](#).

Property Tab

Map the Property

 TOWN OF MILTON, MASSACHUSETTS
ONLINE GIS VIEWER

PROPERTY CUSTOM MAPS ABUTTERS [Property Record Card](#) [New Search](#)

Map showing property boundaries and measurements. A red circle highlights the 'PROPERTY' tab. A red arrow points to the map area. A red circle highlights the 'Measure Length and Area' icon in the toolbar. A red arrow points to the 'View Property Info' icon in the toolbar.

Scale 1" = 44 ft

Town of Milton 525 Canton Ave., Milton, MA 02186 PH:(617) 898-4800 FAX:(617) 698-6741
Site designed by AppGeo.

Property ID	1147
Location	26 SPRUCE ST
Owner	SHIELDS ALICE M TRUSTEE
CoOwner	SPRUCE STREET REALTY TRUST
Condo Unit	
Year Built	1950
Total Acres	0.17
Zoning	RC
Land Use	101
Building Value	\$172,600.00
Land Value	\$210,500.00
Yard Items Value	\$300.00
Total Value	\$383,400.00
Sale Date	6/24/1996
Sale Price	\$1.00
Legal Reference	736-120

☐ Show Aerial Photo

Interactive Mapping Tab

Create a custom
printable map



TOWN OF MILTON, MASSACHUSETTS ONLINE GIS VIEWER

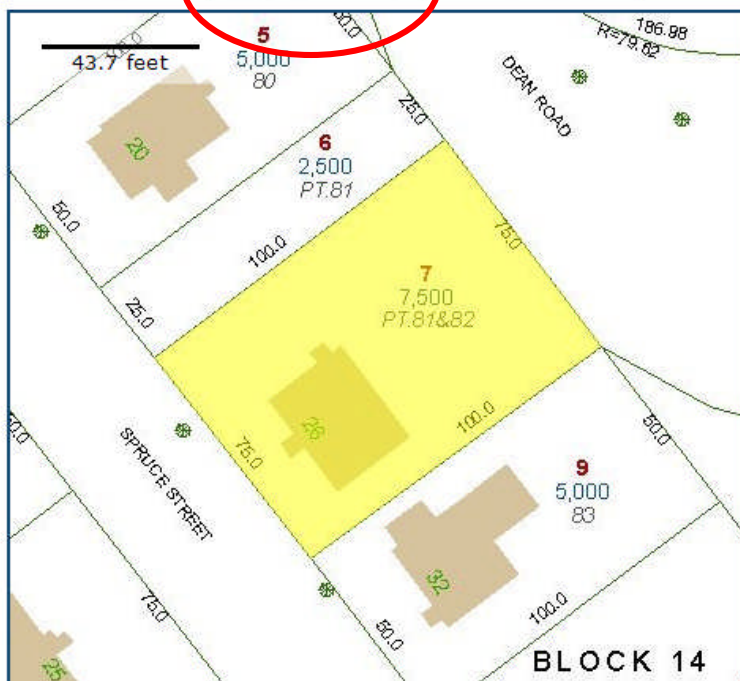
PROPERTY

CUSTOM MAPS

ABUTTERS

Property Record Card

New



Property ID 1147
Location 26 SPRUCE ST
Owner SHIELDS ALICE M TRUSTEE

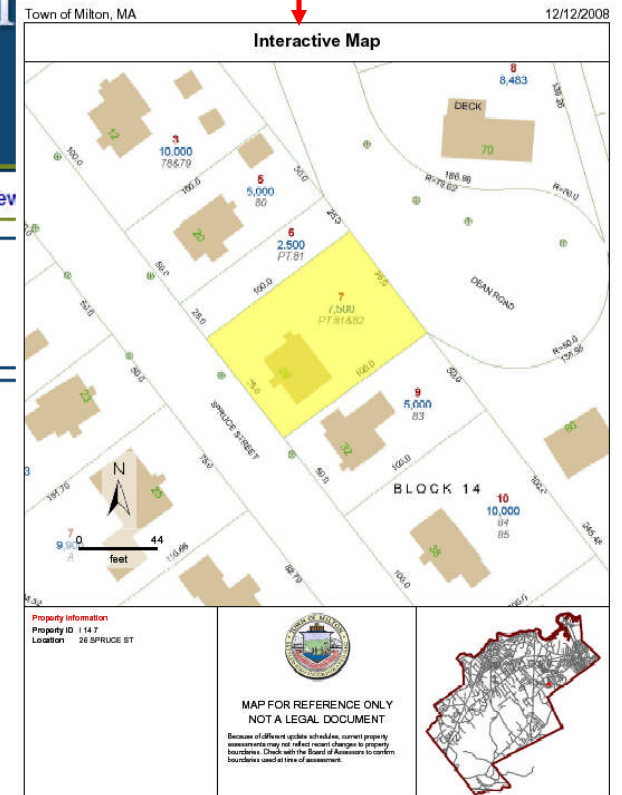
- ☒ Base Map
- ☒ Buildings
- ☐ Pools
- ☐ Roads
- ☒ Surrounding Towns
- ☐ Utility Poles
- ☒ Drainage
- ☒ Natural Features
 - ☒ Trees
 - ☒ Streams

Scale 1" = 44 ft

Refresh

Town of Milton 525 Canton Ave., Milton, MA 02186 PH:(617) 898-4800 FAX:(617) 698-6741
Site designed by AppGeo.

www.AppGeo.com



Interactively turn
on/off layers

Abutters Tab



TOWN OF MILTON, MASSACHUSETTS ONLINE GIS VIEWER

PROPERTY | CUSTOM MAPS | **ABUTTERS** | Property Rec

158 feet

CLAY STREET

DEAN ROAD

SPRUCE STREET

NANCY ROAD

Scale 1" = 158 ft

Town of Milton 525 Canton Ave., Milton, MA 02186 PH:(617) 898-4800 FAX:(617) 698-6741
Site designed by AppGeo.

STEVENS ROBERT HENRY 11 CLAY ST MILTON, MASS 02186	DEPINA FRANCISCO P 63 NANCY RD MILTON, MA 02186	DENNIS MICHAEL 12 ROSE ST MILTON, MA 02186
FLYNN BRIAN N 133 WHITTIER RD MILTON, MASS 02186	TRANG DAVID H 64 NANCY RD MILTON, MA 02186	MORAWIAK MAURIE E 14 ROSE ST MILTON, MASS 02186
CROKE EDWARD F 55 DEAN RD MILTON, MASS 02186	FORNARO GUY 69 NANCY RD MILTON, MA 02186	TUTUNJIAN ROBERT G 20 ROSE ST MILTON, MASS 02186
MARSTON DAVID A TRUSTEE 3 SANGER CIRCLE DOVER, MA 02030	BARDEN WILLIAM J 70 NANCY RD MILTON, MA 02186	MONTANI STEPHEN F (LIFE ESTATE) 26 ROSE ST MILTON, MASS 02186
KATES PAUL R 64 DEAN ROAD MILTON, MASS 02186	DIMAGGIO MARC E 71 NANCY ROAD MILTON, MASS 02186	CALDERONE PASQUALE 34 ROSE ST MILTON, MA 02186
DOUCETTE BERNICE N 81 NANCY RD MILTON, MASS 02186	ZIMMATUS RICHARD 81 NANCY RD MILTON, MA 02186	MANTVILLE BRIAN M 38 ROSE ST MILTON, MASS 02186
TURNER SCOTT D 80 DEAN RD MILTON, MA 02186	GEORGE LOUIS A JR 87 NANCY RD MILTON, MASS 02186	MCANDREW GAIL T 40 ROSE ST MILTON, MASS 02186
HIBBON PATRICK W 45 NANCY RD MILTON, MASS 02186	FLAHERTY JOHN D 93 NANCY RD MILTON, MASS 02186	ONEILL FRANCES E 41 ROSE ST MILTON, MA 02186
WRIGHT WILLIAM F 51 NANCY RD MILTON, MA 02186	VIGOR ROSE 3 PHYLLIS LN MILTON, MASS 02186	HENDERSON ROBERT D 45 ROSE ST MILTON, MASS 02186
OSULLIVAN EUGENE 57 NANCY RD MILTON, MA 02186	CONNELLY STEVEN A TRUSTEE 1859 DORCHESTER AV DORCHESTER, MA 02124-2426	PHILLIPS JOSEPH 49 ROSE ST MILTON, MA 02186

Produce an
Abutter List and
Mailing Labels

Questions & Discussion

